

Honeywell Docket No. 30-4874 (4960)
Bingham Docket No.: 7037172001-3225000

IN THE CLAIMS

1. (Currently Amended) A method to prill a shear-thinnable mixture comprising the steps of:
 - a) providing a ~~molten~~ first component;
 - b) mixing at least [[a]] one second component with said ~~molten~~ first component;
 - c) reacting said components at a temperature and for a time sufficient to form a shear-thinnable mixture ~~having a viscosity, whereby the viscosity decreases with increased shear rate;~~
 - d) mechanically agitating said ~~shear-thinnable~~ mixture by an agitator in a prill head, wherein essentially the entire liquid volume in said prill head is swept by said agitator to shear thin said ~~shear-thinnable~~ mixture; and permitting said shear-thinned mixture to flow through holes in said prill head under the influence of a force selected from the group consisting of static pressure and centrifugal force.
2. (Original) The method according to claim 1 wherein said shear-thinnable mixture is a melt slurry.
3. (Currently Amended) The method according to claim 1 wherein said first component is ammonium nitrate and [[said]] the at least one second component is ammonium sulfate.
4. (Original) The method according to claim 1 wherein said shear-thinnable mixture comprises no more than about 2 weight percent water.
5. (Original) The method according to claim 3 wherein said shear-thinnable mixture further comprises micronutrients.
6. (Original) The method according to claim 1 wherein said prill head is one of a rotating bucket with a stationary blade, a stationary bucket with rotating scrapers and blades, and

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an agitated pressurized nozzle assembly.

7. (Previously Presented) The method according to claim 1 wherein said prill head is wiped with surface-wiping blades.
8. (Currently Amended) The method according to claim 7 wherein said first component is ammonium nitrate and ~~[[said]]~~ the at least one second component is ammonium sulfate.
9. (Original) The method according to claim 7 wherein said shear-thinnable mixture comprises no more than about 2 weight percent water.
10. (Original) The method according to claim 7 wherein said shear-thinnable mixture further comprises micronutrients.

Claims 11-14: Cancelled.

15. (Previously Presented) The prilling method according to either claim 3 or claim 8, wherein the reaction time is about 10 minutes to about 15 minutes.
16. (Previously Presented) The prilling method according to either claim 3 or claim 8, wherein the reaction temperature is at least about 180°C to about 200°C.
17. (Previously Presented) The prilling method according to either claim 3 or claim 8, wherein the ammonium nitrate and the ammonium sulfate are present in equimolar amounts.